

USDA Natural Resources Conservation Service (NRCS)**May, 2003**

Landowner _____

**WHAT IS SEASONAL RESIDUE MANAGEMENT?**

Seasonal Residue Management is managing the amount, orientation, and distribution of crop and other plant residues on the soil surface during a specified period of the year, while planting annual crops on a clean-tilled seedbed, or when growing biennial or perennial seed crops.

PURPOSE

- Reduce sheet and rill erosion
- Reduce soil erosion from wind
- Reduce off-site transport of sediment, nutrients, or pesticides
- Manage snow to increase plant available moisture
- Provide food and escape cover for wildlife

HOW IT HELPS THE LAND

This practice provides for the management of crop residue cover during periods of the year when the soil is susceptible to erosion.

WHERE THE PRACTICE APPLIES

Seasonal Residue Management is used on cropland where residues are managed from harvest until the residue is:

- Buried by tillage for seedbed preparation
- Removed by grazing or,
- Mechanically removed

WHERE TO GET HELP

For assistance with this practice, contact your local Natural Resources Conservation Service office or your local Conservation District office.

APPLYING THE PRACTICE

Crop residues should be uniformly distributed over the entire field during harvest.

Combines or similar harvesting machines should be equipped with spreaders capable of distributing residues over at least 80 percent of the working width of the combine header.

Residues need to be maintained on the surface through periods when erosion has the potential to occur, or until planting, whichever occurs first.

Residues should not be burned.

Partial removal of crop residue by haying or grazing should be done in a way to insure that adequate amounts of residue remain for soil erosion protection.

CONSIDERATIONS

The production of adequate amounts of crop residues is necessary for this practice to function properly. Select crops which produce larger amounts of residues and/or use cover crops in the system to enhance residue production.

Completing tillage and planting in a single operation, or by performing primary tillage no more than three days before planting can minimize exposure to erosion; and in limited moisture areas, can conserve moisture for seed germination.

Leaving standing stubble at least six inch tall will increase the amount of snow trapped on the field.

Leaving one or two rows of unharvested crop standing at intervals across the field can enhance the value of residue for wildlife habitat. Unharvested crop rows have the greatest value when they are adjacent to other cover types, such as grassy or brushy areas or woodland.

Managing Crop Residues

The tables below can be used to estimate crop residues remaining after harvest and then used to

estimate residue after tillage operations are performed.

Residue Produced by Crops		
Crop	Unit	Lbs Residue/Unit
Rye	Bu	84
Wheat	Bu	102
Barley	Bu	72
Corn	Bu	56
Oats	Bu	64
Soybeans	Bu	90
Sorghum	Bu	56
Peanuts	Lbs	1.2
Cotton	Lbs	4.5

Estimated Residue Remaining from Tillage Operation	
Operation	% Remaining
Sweeps > 40 inches	80
Field Cultivator	60/70
Chisel Plow	60
Disk	30/40
Moldboard	5
Drill/Planter	70/80
Anhydrous Applicator	70
Harrow – Spring tooth	75

Example of Residue Management Estimation 30 bu wheat yield per acre (30 x 102) = 3060 lbs	
Operation	Residue Remaining
Chisel	$3060 \times 0.60 = 1836$
Sweep	$1836 \times 0.80 = 1469$
Disk	$1469 \times 0.40 = 588$
Drill	$588 \times 0.80 = 470$
Using the above tillage operations, 470 lbs of residue will be remaining on the soil surface.	

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250 or call 1-800-245-6340 (voice) or (202)720-1127 (TDD). USDA is an equal employment opportunity employer.